



**BILLING CODE: 3510-22-P**

**DEPARTMENT OF COMMERCE**

**National Oceanic and Atmospheric Administration**

**0648-XF008**

**Endangered and Threatened Species; Take of Anadromous Fish**

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Applications for two new scientific research permits and 13 permit renewals.

**SUMMARY:** Notice is hereby given that NMFS has received 15 scientific research permit application requests relating to Pacific salmon, steelhead, eulachon, and green sturgeon. The proposed research is intended to increase knowledge of species listed under the Endangered Species Act (ESA) and to help guide management and conservation efforts. The applications may be viewed online at:

[https://apps.nmfs.noaa.gov/preview/preview\\_open\\_for\\_comment.cfm](https://apps.nmfs.noaa.gov/preview/preview_open_for_comment.cfm).

**DATES:** Comments or requests for a public hearing on the applications must be received at the appropriate address or fax number (see ADDRESSES) no later than 5 p.m. Pacific standard time on *[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]*.

**ADDRESSES:** Written comments on the applications should be sent to the Protected Resources Division, NMFS, 1201 NE Lloyd Blvd., Suite 1100, Portland, OR 97232-1274. Comments may also be sent via fax to 503-230-5441 or by e-mail to [nmfs.nwr.apps@noaa.gov](mailto:nmfs.nwr.apps@noaa.gov) (include the permit number in the subject line of the fax or email).

**FOR FURTHER INFORMATION CONTACT:** Rob Clapp, Portland, OR (ph.: 503-231-2314), Fax: 503-230-5441, e-mail: *Robert.Clapp@noaa.gov*). Permit application instructions are available from the address above, or online at <https://apps.nmfs.noaa.gov>.

**SUPPLEMENTARY INFORMATION:**

*Species Covered in This Notice*

The following listed species are covered in this notice:

Chinook salmon (*Oncorhynchus tshawytscha*): Threatened Lower Columbia River (LCR); threatened Puget Sound (PS); threatened Snake River (SR) spring/summer-run; threatened SR fall-run; endangered Upper Columbia River (UCR) spring-run; threatened Upper Willamette River (UWR).

Steelhead (*O. mykiss*): Threatened LCR; threatened Middle Columbia River (MCR); threatened PS; threatened SR; threatened UCR; threatened UWR

Chum salmon (*O. keta*): Threatened Hood Canal Summer-run (HCS); threatened Columbia River (CR).

Coho salmon (*O. kisutch*): Threatened LCR; threatened Oregon Coast (OC) coho.

Sockeye salmon (*O. nerka*): Threatened Ozette Lake (OL); endangered SR.

Eulachon (*Thaleichthys pacificus*): Threatened Southern (S).

Green sturgeon (*Acipenser medirostris*): Threatened Southern (S).

*Authority*

Scientific research permits are issued in accordance with section 10(a)(1)(A) of the ESA (16 U.S.C. 1531 *et seq.*) and regulations governing listed fish and wildlife permits (50 CFR 222-226). NMFS issues permits based on findings that such permits: (1) are applied for in good faith; (2) if granted and exercised, would not operate to the

disadvantage of the listed species that are the subject of the permit; and (3) are consistent with the purposes and policy of section 2 of the ESA. The authority to take listed species is subject to conditions set forth in the permits.

Anyone requesting a hearing on an application listed in this notice should set out the specific reasons why a hearing on that application would be appropriate (see ADDRESSES). Such hearings are held at the discretion of the Assistant Administrator for Fisheries, NMFS.

#### *Applications Received*

##### *Permit 1135-9R*

The United States Geological Survey (USGS) is seeking to renew, for five years, a research permit that currently allows them to take juvenile LCR steelhead in the Wind River subbasin (Washington). The purpose of the USGS study is to provide information on the growth, survival, habitat use, and life-histories of LCR steelhead. This information would improve understanding of habitat associations and life history strategies for LCR steelhead in the Wind River and that, in turn, would help state, tribal, and Federal efforts to restore LCR steelhead. The USGS proposes to capture juvenile LCR steelhead using backpack electrofishing equipment, hold the fish in aerated buckets, anaesthetize them with MS-222, measure length and weight, tag age-0 and age-1 fish with passive integrated transponders (PIT-tags), and release all fish at the site of collection after they recover from anesthesia. The researchers do not propose to kill any fish but a small number may die as an unintended result of research activities.

*Permit 1175–9R*

The Gifford Pinchot National Forest (GPNF) is seeking to renew, for five years, a research permit that currently allows them to take juvenile PS Chinook salmon, PS steelhead, MCR steelhead, LCR Chinook salmon, LCR coho salmon, and LCR steelhead in the Middle Columbia-Hood and Puyallup subbasins (Washington). The purpose of this research is to describe fish species presence, distribution, spawning areas, and habitat conditions on lands that the GPNF administers. The GPNF and other agencies would use that information in forest management, habitat restoration, and species recovery efforts. The GPNF proposes to use backpack electrofishing and seines to capture juvenile salmonids, hold fish for short periods in aerated buckets, identify, and then release the fish. The researchers do not propose to kill any fish, but a small number may die as an unintentional result of research activities.

*Permit 1345-8R*

The Washington State Department of Fish and Wildlife (WDFW) is seeking to renew, for five years, a research permit that currently allows them to take juvenile and adult LCR Chinook salmon, PS Chinook salmon, LCR coho salmon, LCR steelhead, and PS steelhead. The WDFW administers a multitude of water bodies through the state of Washington, and this permit would provide them with coverage throughout Puget Sound and the Lower Columbia River basin. The purpose of the WDFW study is to assess inland game fish communities and thereby improve fishery management. The research would benefit salmonids by helping managers write warm-water fish species harvest regulations that reduce potential impacts on listed salmonids. The WDFW proposes to capture fish using boat electrofishing, fyke nets, and gillnets. After being captured, the listed salmon

and steelhead would be placed in aerated live wells, identified, and released. The researchers do not propose to kill any listed fish being captured, but a small number may die as an unintended result of the activities.

*Permit 1386-9R*

The Washington Department of Ecology (WDOE) is seeking to renew, for five years, a research permit that currently allows them to take juvenile and adult LCR Chinook salmon, PS Chinook salmon, SR spring/summer-run Chinook salmon, SR fall-run Chinook salmon, UCR spring-run Chinook salmon, CR chum salmon, HC summer-run chum salmon, LCR coho salmon, OL sockeye salmon, LCR steelhead, MCR steelhead, PS steelhead, SR Basin steelhead, and UCR steelhead throughout the state of Washington. The purpose of the research is to investigate the occurrence and concentrations of toxic contaminants in non-anadromous freshwater fish tissue, sediment, and water at sites throughout Washington. The WDOE conducts this research in order to meet Federal and state regulatory requirements. This research would benefit listed species by identifying toxic contaminants in fish and informing pollution control actions. The WDOE proposes to capture fish using various methods including backpack and boat electrofishing, beach seining, block, fyke, and gill netting, and angling. All captured salmon and steelhead would either be released immediately or held temporarily in an aerated live well to help them recover before release. The researchers do not propose to kill any fish but a small number may die as an unintended result of research activities.

*Permit 1564-5R*

The University of Washington (UW) is seeking to renew, for five years, a research permit that currently allows them to take juvenile PS Chinook salmon and PS steelhead.

The purpose of the UW study is to monitor the success of habitat restoration projects in the Duwamish River estuary, the Snohomish River estuary, and Shilshole Bay, Washington, by documenting changes in population characteristics among Chinook salmon in response to estuarine habitat restoration actions. The habitat restoration work would be conducted by several entities, but primarily by the Port of Seattle and the City of Seattle. The habitat restoration projects are designed to improve habitats that Chinook salmon use for rearing and migration. Monitoring the restoration sites would help determine the projects' effectiveness and thereby guide future restoration projects for the benefit of listed salmonids in the area. The UW proposes to capture fish using enclosure nets and beach seines. The captured fish would be held in buckets of aerated water. Juvenile salmonids would be anesthetized, checked for marks and tags, measured, and released. Some individuals would have their stomach contents sampled via non-lethal gastric lavage. The researchers do not propose to kill any listed fish being captured, but a small number may die as an unintended result of the activities.

*Permit 1585-4R*

The Washington State Department of Natural Resources (WDNR) is seeking to renew, for five years, a research permit that currently allows them to take juvenile PS Chinook salmon, HCS chum salmon, and PS steelhead. The work would be carried out in many central Puget Sound tributaries that originate in the Olympic and Cascade Mountain Ranges in Mason, Kitsap, King, Pierce, Thurston, Snohomish, and Lewis Counties, Washington. The purpose of the WDNR study is to determine fish presence or absence in streams greater than two feet in width between ordinary high water marks and with gradients of less than 20 percent. The information gathered would be used to determine

salmonid presence and distribution and thereby inform land management decisions on WDNR holdings. The WDNR would use this information on fish-bearing streams to benefit the species by removing existing man-made fish barriers or possibly replacing them with structures that fish can pass over or through. The WDNR proposes to capture fish using backpack electrofishing equipment. The captured fish would be identified and released back to the pools from which they came. In some cases, the researchers may not actually capture any fish, but would merely note their presence. The researchers do not propose to kill any listed fish being captured, but a small number may die as an unintended result of the activities.

*Permit 1587-5R*

The USGS is seeking to renew a research permit, for five years, that currently allows them to take juvenile HCS chum salmon, PS Chinook salmon, and PS steelhead. The USGS research may also cause them to take adult S eulachon, for which there are currently no ESA take prohibitions. The work would take place in the northern Puget Sound (San Juan Island and Samish Bay), Whidbey Basin (Skagit Bay, Snohomish River delta), southern Puget Sound (Nisqually Delta), Admiralty Inlet (including Foulweather Bluff, Kilisut Harbor, and Oak Bay), and the Strait of Juan de Fuca. The research would be divided into two projects: (1) Restoration of Puget Sound Deltas and other nearshore restoration sites and (2) Effects of Urbanization on Nearshore Ecosystems. The purpose of the USGS study is to understand large river delta ecosystems and the physio-chemical processes related to nearshore habitat alterations that modify trophic web, community dynamics, and forage fish populations. The USGS would sample once per month in each area from April through September, but extra sampling (1-8 days per quarter) may

sometimes be needed. The USGS proposes to capture fish primarily by using lampara nets, but beach seines, dip nets, gill nets, and angling may also be used. The captured fish would be identified to species, weighed, and measured. All listed fish would be immediately processed and released near their capture location. Forage fish would be counted, measured, weighed, and some may be sacrificed for otoliths, genetics, and fish health assays. All sampling plans would be reviewed and approved by the USGS Institutional Animal Care and Use Committee before being implemented. The researchers do not propose to kill any listed fish being captured, but a small number may die as an unintended result of the activities.

#### *Permit 1598-4R*

The Washington State Department of Transportation (WSDOT) is seeking to renew, for five years, a research permit that currently allows them to take juvenile PS Chinook salmon, UCR spring-run Chinook salmon, SR spring/summer-run Chinook salmon, SR fall-run Chinook salmon, LCR Chinook salmon, HCS chum salmon, CR chum salmon, LCR coho salmon, OL sockeye salmon, SR sockeye salmon, LCR steelhead, PS steelhead, MCR steelhead, SR steelhead, and UCR steelhead. The WSDOT research may also cause them to take eulachon, for which there are currently no ESA take prohibitions. Sample sites would be located throughout the state of Washington. The purpose of the WSDOT study is to determine the distribution and diversity of anadromous fish species in waterbodies crossed by or adjacent to the state transportation systems (highways, railroads, and/or airports). This information would be used to assess the impacts that projects proposed at those facilities may have on listed species. The research would benefit the listed species by helping WSDOT minimize project impacts on listed fish to



the greatest extent possible. Depending on the size of the stream system, the WSDOT proposes to capture fish using dip nets, stick seines, baited gee minnow traps, or backpack electrofishing. The captured fish would be identified to species and immediately released. The researchers do not propose to kill any listed fish being captured, but a small number may die as an unintended result of the activities.

*Permit 16069-2R*

The City of Portland (COP) is seeking to renew, for five years, a research permit that currently allows them to take juvenile and adult MCR steelhead, UCR spring Chinook salmon, UCR steelhead, SR spring/summer-run Chinook salmon, SR fall-run Chinook salmon, SR steelhead, SR sockeye salmon, LCR Chinook salmon, LCR coho salmon, LCR steelhead, CR chum salmon, UWR Chinook salmon, UWR steelhead, OC coho salmon, and S green sturgeon in the Columbia and Willamette rivers and tributaries (Oregon). The COP research may also cause them to take adult S eulachon, for which there are currently no ESA take prohibitions. This research is part of the Portland Watershed Management Plan, which aims to improve watershed health in the Portland area. In this program, project personnel sample 37 sites annually across all Portland watersheds for hydrology, habitat, water chemistry, and biological communities. The research would benefit listed salmonids by providing information to assess watershed health, status of critical habitat, effectiveness of watershed restoration actions, and compliance with regulatory requirements. The City of Portland proposes to capture juvenile fish using backpack and boat electrofishing, hold fish in a bucket of aerated water, take caudal fin clips for genetic analysis, and release fish at a point near their capture site that would be chosen to minimize the likelihood of recapture. The researchers

would avoid contact with adult fish. The researchers do not propose to kill any fish but a small number may die as an unintended result of research activities.

*Permit 16666-2R*

The U.S. Fish and Wildlife Service (FWS) is seeking to renew, for five years, a research permit that currently allows them to take juvenile LCR coho salmon and adult LCR Chinook salmon in Abernathy Creek (Washington). The goal of this research is to determine the natural reproductive success and relative fitness of hatchery origin and natural-origin steelhead and assess the overall demographic effects of hatchery fish supplementation in Abernathy Creek relative to two adjacent control streams. The research would benefit listed salmonids by producing data to be used in hatchery and genetic management plans. Steelhead are not listed in these streams, but the FWS have captured juvenile LCR coho salmon and observed adult LCR Chinook salmon in previous years. The FWS proposes capture, handle, and release juvenile LCR coho salmon during backpack electrofishing surveys. The researchers would avoid electrofishing near adult coho and Chinook salmon. The researchers do not expect to kill any listed fish, but a small number may die as an unintended result of the research activities.

*Permit 16702-3R*

The Northwest Fisheries Science Center (NWFSC) is seeking to renew for five years a research permit that currently allows them to take juvenile PS Chinook salmon and PS steelhead. The NWFSC research may also cause them to take adult S eulachon, for which there are currently no ESA take prohibitions. The survey sites would be located in the Snohomish River estuary. The purpose of the NWFSC study is to monitor habitat use of juvenile PS Chinook salmon in response to estuary restoration at the Qwuloolt

restoration site by levee breach and subsequent tidal inundation in late 2015. Specifically, the goals are to identify the life history types present, their spatial and temporal distribution, their feeding ecology, and the interactions with other biota. The research would benefit the listed species by determining if the restoration strategies are effective in restoring fish habitat and populations. Sampling would occur year round; biweekly from February to September and then once a month from October to January. The NWFSC proposes to capture fish using beach seines (mainstem habitat) and fyke traps (tidal channels). The researchers would intentionally kill up to 15 juvenile PS Chinook via a lethal dose of MS-222. Specimens would be taken for stomach, otolith, and other tissue sampling. Any PS Chinook unintentionally killed during the research would be used in lieu of a fish that would otherwise be sacrificed. All other juvenile PS Chinook and all PS steelhead captured would be counted, measured (fork length), and released.

*Permit 16866-3R*

The Oregon State University (OSU) Department of Fisheries and Wildlife is seeking to renew, for five years, a research permit that currently allows them to take adult and juvenile LCR Chinook salmon, LCR coho salmon, LCR steelhead, CR chum salmon, UWR Chinook salmon, UWR steelhead, MCR steelhead, UCR spring Chinook salmon, UCR steelhead, SR spring/summer-run Chinook salmon, SR fall-run Chinook salmon, and SR steelhead in the Willamette River basin (Oregon). The OSU research may also cause them to take adult *S. eulachon*, for which there are currently no ESA take prohibitions. Objectives of the study are to (1) assess the status of native and non-native fish communities, (2) implement long-term monitoring, (3) compile and summarize existing reports and unpublished data on fish communities in the Willamette River from OSU

research, Oregon Department of Fish and Wildlife (ODFW) research, and EPA research, and (4) measure water quality in known cold water refugia to determine their suitability as fish habitat. The study would benefit listed salmonids by providing data for state and Federal collaborators to use in their management and planning of conservation, restoration, and recovery efforts. The OSU researchers propose to capture juvenile salmonids using backpack and boat electrofishing, hold fish in aerated fresh water, and then identify, measure, and release juvenile fish. Adult fish may be encountered but would not be netted. The researchers do not propose to kill any fish but a small number may die as an unintended result of research activities.

*Permit 20492*

The ODFW is seeking to renew, for five years, a research permit for fisheries research in the Willamette and Columbia basins (Oregon) and on the Oregon coast. ODFW proposes to take juvenile UCR spring-run Chinook salmon, UCR steelhead, SR spring/summer-run Chinook salmon, SR fall-run Chinook salmon, SR Basin steelhead, SR sockeye salmon, MCR steelhead, LCR Chinook salmon, LCR coho salmon, LCR steelhead, CR chum salmon, UWR Chinook salmon, UWR steelhead, and OC coho salmon, and adult S green sturgeon. The ODFW research may also cause them to take adult S eulachon, for which there are currently no ESA take prohibitions. The new permit would cover the following projects: (1) Warm-water and Recreational Game Fish Management, (2) District Fish Population Sampling in the Upper Willamette Basin, and (3) Salmonid Assessment and Monitoring in the Deschutes River. The research would provide information on fish population structure, abundance, genetics, disease occurrences, and species interactions. This information would be used to direct

management actions to benefit listed species. Juvenile salmonids would be collected using boat electrofishing. Some fish would be anesthetized, sampled for length and weight, allowed to recover from the anesthesia, and released. Most salmonids would be allowed to swim away after being electroshocked, or they would be netted and released immediately. The ODFW does not intend to kill any of the fish being captured, but a small number may die as an unintended result of the activities.

*Permit 20535*

The U.S. Army Corps of Engineers (USACE) is seeking a three-year research permit to annually take juvenile PS Chinook salmon and PS steelhead in the lower Duwamish River (Washington). The USACE research may also cause them to take adult S eulachon, for which there are currently no ESA take prohibitions. The purpose of the USACE study is to collect starry flounder (*Platichthys stellatus*) and shiner surfperch (*Cymatogaster aggregate*) for tissue sampling and PCB congener analysis. The research would benefit the listed species by enhancing the understanding of contaminant partitioning within the food web near the Lower Duwamish Waterway Superfund Site. The USACE proposes to capture fish using beach seines. All listed fish are released would be captured, handled, and released. The researchers do not propose to kill any listed fish being captured, but a small number may die as an unintended result of the activities.

*Permit 20659*

The FWS is seeking a five-year research permit to annually take juvenile PS Chinook salmon and PS steelhead from Lake Washington and its tributaries (King County, Washington state). The purposes of the FWS study are (1) to test how attracted Chinook salmon are to different types of artificial lighting, and (2) to examine juvenile Chinook

salmon abundance and diets at the mouths of two non-natal tributaries in the City of Seattle. The research would benefit the listed species by (1) providing better information to land resource managers on how best to reduce the effects of nighttime artificial lighting on juvenile Chinook salmon while maintaining appropriate lighting for safety considerations and (2) understanding how juvenile Chinook salmon use urban streams during base flow conditions and after rain events. The FWS proposes to capture fish using beach seines. All PS steelhead and the majority of the PS Chinook salmon would be immediately released after capture. A subset of the juvenile PS Chinook would be anesthetized with MS-222, measured for length, undergo gastric lavage (non-natal stream surveys only), and released after they have recovered. The researchers do not propose to kill any listed fish being captured, but a small number may die as an unintended result of the activities.

This notice is provided pursuant to section 10(c) of the ESA. NMFS will evaluate the applications, associated documents, and comments submitted to determine whether the applications meet the requirements of section 10(a) of the ESA and Federal regulations. The final permit decisions will not be made until after the end of the 30-day comment period. NMFS will publish notice of its final action in the FEDERAL REGISTER.

Dated: October 31, 2016.

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Angela Somma,

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